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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/540,462

11/21/2005

Reinhard Strey

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2768

23859 7590 10/10/2007  
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EXAMINER

CHANG, VICTOR S

ART UNIT

PAPER NUMBER

1794

MAIL DATE

DELIVERY MODE

10/10/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/540,462	<b>Applicant(s)</b> STREY ET AL.	
	<b>Examiner</b> Victor S. Chang	<b>Art Unit</b> 1794	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 24 September 2007 and 28 June 2007.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 25-58 is/are pending in the application.
- 4a) Of the above claim(s) 29-32, 36 and 38-58 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 25-28, 33-35 and 37 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 June 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                       | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>6/22/05</u> .   | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Introduction***

1. Applicants' request filed 6/28/2007 to correct the interview summary records, mailed 1/11/2007 and 1/30/2007, as having Kevin Hathcock present at the interviews, not Lawrence Villanuerva, is acknowledged. The examiner regrets any inconvenience this may have caused.

### ***Election/Restrictions***

2. Applicant's election with traverse of Group I (claims 25-35 and 37), drawn to a foamed material, in the reply filed on 6/28/2007 is acknowledged. The traversal is on the ground(s) that DeSimone et al. [US 5840820] does not anticipate, nor renders independent claim 25 obvious. However, since DeSimone teaches methods to produce foamed polymers by providing a polymerization reaction mixture comprising a polymerizable monomer (K1), a carbon dioxide reaction medium (K2), and surfactants as amphiphilic material (K3) [col. 7, ll. 37; col. 8, ll. 46-60], DeSimone teaches all the features of claim 25. The requirement is still deemed proper and is therefore made FINAL.

Applicants' response filed 9/24/2007 to elect "water" as the first fluid species (K1), "ethane" as the second fluid species (K2), and "octaethylene glycol monododecyl ether" as the amphiphilic material (K3) is acknowledged. Applicants state that the claims readable on "octaethylene glycol monododecyl ether" are 25, 34-36, and 54-56. The claims readable on "ethane" are 25, 27, 33, 35-36, 38-45, 53, and 55-56. The claims readable on "water" are 25-28, 35-38, 45-46, and 55-56. Applicants further state that the claims readable on "acryl amide" are

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29-32 and 47-50. However, since applicants have already expressly elected “water” as the first fluid K1, and “acryl amide” is merely recited as an alternative species of K1 by a closed clause (see dependent claims 31 and 32), applicants’ remarks regarding claims readable by “acryl amide” appears to be immaterial. Elected claims are 25-28, 33-35 and 37. Claims 29-32, 36 and 38-58 are withdrawn.

### ***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. Claims 25-28 and 33-35 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

More particularly, claims 25-28, 33-35 relates to a foamed material consisting of a first fluid (K1), a second fluid (K2), and an amphiphilic material (K3). However, throughout the specification, the *foamed* material is disclosed as *formed from* K1, K2 and K3, after these starting materials are processed by disclosed methods. Nowhere is there a disclosure that the end product of a *foamed* material still consists of these starting materials, therefore the claimed invention appears to be new matter.

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5. Claims 25-28, 33-35 and 37 are rejected under 35 U.S.C. 112, first paragraph, as based on a disclosure which is not enabling. Polymer or polymerizable monomer is critical or essential to the practice of the invention, but not included in the claim(s) is not enabled by the disclosure. See *In re Mayhew*, 527 F.2d 1229, 188 USPQ 356 (CCPA 1976).

More particularly, since the elected Species K1 is water, and it is common knowledge that water is not a polymer, nor a polymerizable monomer, absent of a polymer or polymerizable monomer in claim 25, one of ordinary skill in the art would not know how to obtain a foamed material for disclosed utility in the specification.

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claims 25-28 and 33-35 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 25 recites the limitation "the previously adjusted state" in last line. There is insufficient antecedent basis for this limitation in the claim.

Claim 28 recites: "wherein said first fluid (K1) is at least one substance selected from the group of substances consisting of polar substances and nearly polar substances." However, since a claim which depends from a claim which "consists of" the recited elements or steps cannot add an element or step (See MPEP § 2111.03), the recitation renders the scope of the claimed invention vague and indefinite.

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8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

9. Claim 37 is rejected under 35 U.S.C. 102(b) as being anticipated by DeSimone et al. [US 5840820].

DeSimone teaches methods to produce foamed polyolefins by providing a polymerization reaction mixture comprising a polymerizable monomer (K1), a carbon dioxide reaction medium (K2), and surfactants as amphiphilic material (K3). The carbon dioxide is present in an amount sufficient to act as a blowing agent (upon foaming, converted from supercritical state to a subcritical state) [col. 7, ll. 37; col. 8, ll. 46-60]. The polymerizable olefin monomer is present as a liquid under pressure. The carbon dioxide is in the supercritical state [col. 2, ll. 9]. The amphiphilic material inherently has two blocks facing relatively polar and nonpolar materials.

DeSimone anticipates all the features of claimed invention.

### ***Conclusion***

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Victor S. Chang whose telephone number is 571-272-1474. The examiner can normally be reached on 7:00 am - 5:00 pm, Tuesday - Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel H. Morris can be reached on 571-272-1478. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Victor S Chang/  
Primary Examiner, Art Unit 1794

10/4/2007